

Clinical Section

Osteo-Arthritis of the Hip-Joint

by Dr. Alexander Gibson

The osteo-arthritic hip is one of those maladies that may render the later years of life a period of almost intolerable suffering. When the condition is bilateral, the state of the sufferer may be pitiable in the extreme. Fortunately, it does not often reach this incapacitating degree, but changes in the hip-joint of less severe character may be sufficient to make life rather miserable.

It is important to realise the characteristics of this condition. It is not to be regarded as the result of some infective process; it is to be thought of as essentially degenerative in character. Foci of infection may play a part, but this is not the rule. The changes that occur in the joint are "wear-and-tear" changes. They may result from some single severe injury, sustained, it may be, many years previously, or be the outcome of innumerable small shocks, such as may be inseparable from the patient's occupation. A fall from a horse in adolescent life may lead to osteo-arthritic changes in the hip, years afterwards. A trainman who jumps always on to the same foot may subject the hip of that side to repeated trauma.

It is unusual to have this condition appearing in early life. So typically does it affect middle and later life that the designation "*Morbus Coxae Senilis*" is hardly a misnomer. The infective type of arthritis affects rather the earlier years of life, before middle age has arrived.

This distinction is rather important. Recognition that osteo-arthritis is a sequel of trauma, not of infection, may permit of many teeth being retained, even of tonsils being spared, and "sinuses" remaining unmolested.

Apart from age, a different type of patient is affected in the two groups. The osteo-arthritic hip tends to show itself in the strong, healthy, robust man who has spent an active athletic or rather laborious life. The condition comes on rather insidiously. Changes may be fairly far advanced before the patient is conscious of much more than a slight limp, or a feeling of uneasiness hardly amounting to actual pain. The general health does not suffer. There is a tendency to decrease exertion, and this, with preservation of an appetite adapted to abundant physical activity, may be manifested by increased weight and an appearance of increased well-being. Examination at this time shows limitation of movement in all directions, mainly of abduction. The position assumed by the limb varies. As a rule there is some adduction, flexion, and it may be internal rotation. In other cases there is apparent lengthening owing to some degree of permanent abduction. There is never absolute fixation; in other words, ankylosis does not occur, although limitation of movement may be very pronounced. A radiograph shows

characteristic features. There is diminution of the "joint-space." This means that the articular cartilage is, as it were, worn away so that bony surfaces may be in contact. The shape of the head of the femur is altered. No longer has it the clean-cut circular outline of the normal spherical femoral head. It may be oval, or flattened; the surface may be irregular. The beautiful trabeculations that indicate the lines of transmission of strain are lost or blurred. The cancellous bone is no longer homogenous. There are patches of increased density, and other patches which cast little or no shadow. There may be cystic areas in the head, or exostoses projecting from any part of the head or neck of the bone. The acetabulum may exhibit similar alterations of structure. Exostoses are almost invariably seen about the acetabular rim. The meaning of these changes is clear. Increased density of bone — sclerosis — means decreased blood supply; increased rarefaction means absorption of bone, and that is interpreted as the result of increased blood supply. Whether the changes be sclerotic or "porotic" in character it means that there is an alteration in the blood supply of the part. This does not mean that the large vessels travelling to the head by the ligamentum teres, by the "cervical ligaments," or from the shaft are demonstrably larger or smaller than normal, but it does mean that the network of small vessels that form the irrigation system of the femoral head will show blocked channels here, dilated vessels there. The vascular network is no longer perfect. Some spots of bone receive too much blood, others too little. The areas of rarefaction may form cysts up to half-an-inch in diameter; sclerosis may proceed to ivory-like hardness, generally known as "eburnation." Here a word should be put in for more serious consideration of joint injuries. The damage may appear trivial, the symptoms may be barely noticeable, but every trauma takes its toll. Time is necessary for microscopic restitution to normal. If this is not provided, and restitution is imperfect, it is possible for the bone to carry on as long as the abundant reserve of youth is still forthcoming; but with depletion of that reserve with the passing of the years, there comes a time when the vascular deficiencies can no longer be compensated and symptoms and signs become evident. In the absence of precise knowledge as to what influences the formation and control of vascular capillary channels, one ought as a practical measure to ensure that sufficient rest is given to any joint after an injury of much severity.

Let us suppose that a patient comes presenting typical X-ray features of an osteo-arthritic hip. There are two possible complaints:

- (a) Limping.
- (b) Pain.

Limp. This is present in proportion to the direc-

tion and extent of limitation of motion. It is most noticeable when there is the double deformity of adduction and flexion. If there is little pain associated with the limp, the patient may carry on with comparatively little trouble if the sole or heel of the shoe is raised so as to make the pelvis horizontal.

Pain. Unluckily pain is the rule rather than the exception. The pain may range from discomfort to complete disablement. Sometimes the patient with recollections of an athletic youth may try to "work it off" by increased exertion. This procedure always fails. The more the joint is rested, the less is the pain. A problem which frequently presents itself is that of the workman who can carry on his day's task, but is unable to indulge in recreations, such as bowling. The advice one usually gives is that exertion should be limited to what the joint can cope with. If the patient grasps the idea that the joint has a certain capacity for work, and that if no more is asked of the joint either in degree or duration of effort than it can reasonably meet, then he may continue for years without becoming seriously inconvenienced. If, on the other hand, he persists in habitual over-use of the part, then the pain is likely to increase, sleep will be disturbed, and before long, he finds it impossible to do the work which earns his daily bread. In female patients, this voluntary restriction of effort is more readily attainable than in the case of wage-earning artisans. If exercise is a necessity of life, then there is no better form of it than swimming. This provides movement without weight-bearing, and altogether inhibits violent or excessive efforts. It is clear, therefore, that though deformity may occur and the disability of a limp may be present, it is pain which decides the management of the case.

What measures are open to us?

1. Forcible movement under an anaesthetic. This may have the effect of detaching exostoses or cartilaginous growths, providing greater freedom of movement, and (sometimes) lessening of pain. The success of this measure is usually short-lived. The reaction is usually fairly speedy and shows itself in the form of increased pain and lessened range of movement.

2. A few years ago a transient fashion for boring holes in the bone adjacent to the joint made its appearance in the surgical field. Any justification for this operation could only consist in altering the blood supply of the part. It is such a haphazard procedure that it cannot be recommended.

3. Re-shaping of the femoral head. This has been employed many times and frequently with considerable success. It may consist in chipping off the exostoses but more often good results are obtained by decreasing the size of the head by frank removal of sufficient bone to permit of the head of the femur moving freely in the acetabulum. The "snag" in this procedure is that one removes

the hard resistant cortex, leaving a surface made of cancellous bone. In a number of cases, the head of the bone continues to decrease in size until the stability of the joint is seriously compromised.

4. Fixation of the joint: arthrodesis. When successful, this measure brings about complete release from pain. There are two difficulties associated with this operation.

1. Fixation is not invariably obtained, and a fibrous ankylosis is no more satisfactory than an osteo-arthritic joint.

2. If fixation is obtained, pain is abolished but so is mobility. If a hip-joint is fixed in childhood, sufficient movement is generally acquired to enable the patient to be independent. If, however, fixation of the hip-joint is brought about for the first time at the age of 45 or over, adaptation to this limitation is hardly possible. The patient cannot put on his own sock or shoe. It is not hard to imagine circumstances where this is rather worse than a disadvantage. Arthrodesis as a means of treatment of osteo-arthritic hip is far from satisfactory.

5. For some years arthroplasty or formation of a new joint with some interposing material was popular. The interposing material might be fascia or Baer's membrane (chromicised pig's bladder). A fair number of these operations proved unsatisfactory. The non-vascular membrane quite often became a slough and had to be removed, leaving behind a joint with adhesions which were a source of pain.

A search was made for some inert material that would prove more satisfactory. The idea underlying the quest was to find something which would help to form a smooth articular surface for the femoral head. When this appropriate surface had been formed the "cup" could be removed. Various materials were tried. Plastic material and glass were tried, but the best up to the present has been an alloy of chromium cobalt and molybdenum known commercially as vitallium. Up to the present it has given very promising results so much so that it must be regarded at present as easily the most promising of all the measures adopted.

It has been proved that articular cartilage with rows of cartilage cells, can be formed under the cup. Up to the present, also, it has not been found necessary to remove the vitallium cup. What will develop as the result of further observations it is too early to formulate. Meanwhile, the outlook is decidedly hopeful.

One point further should be emphasised. The insertion of a vitallium cup is not the end but only the beginning of the process of recovery. Many months of persistent exercise are necessary to increase the range of movement at the hip-joint.

During this time, muscles — especially the adductor group — have to be stretched, and lines of strain in muscle and bone planes have to undergo re-adjustment. While, therefore, one may expect freedom from the former hip-joint pain, aches and cramps, and other discomforts are certain to take their place, until the stress-bearing tissues have reached a state of equilibrium.

Abstracts

Vitamin E for Progressive Muscular Atrophy and Pseudohypertrophic Muscular Dystrophy. Jour. Amer. Med. Ass'n. 1940, vol. 1, p. 948; also *Lancet*, 1940, vol. 1, p. 10.

Rats fed on diets deficient in vitamin E develop wasting of the posterior columns, pyramidal tracts, and anterior horns. Two American cases of Progressive Muscular Atrophy (or Amiotrophic Lateral Sclerosis) given synthetic vitamin E, "Ephynal" tabs. ii t.i.d., are said to have recovered power and bulk in wasted muscles. Two English cases also improved.

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Synthetic Vitamin B₆ for Pseudohypertrophic Muscular Dystrophy. Jour. Amer. Med. Ass'n. 1940, vol. 1, p. 1058.

200 mg. of a methyl pyridine compound was given subcutaneously once a week to six cases. Five are said to have improved. —F.G.A.

Centuries of Use

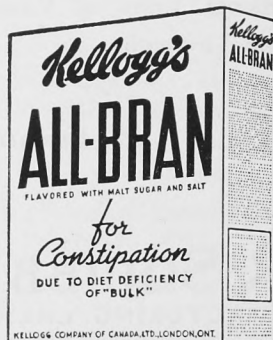
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Editorials and Association Notes

The Manitoba Medical Review

ESTABLISHED 1921

WINNIPEG, JUNE, 1940

Published Monthly by the
MANITOBA MEDICAL ASSOCIATION
Canadian Medical Association, Manitoba Division
Editorial Office
 102 MEDICAL ARTS BUILDING, WINNIPEG

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*Editorial or other opinion expressed in this Review is not necessarily
 sanctioned by the Manitoba Medical Association*

Welcome to the New Editor

The exigencies of war have compelled the resignation of the former editor of the *Manitoba Medical Review*. Dr. Clarence MacCharles, who served the medical profession of Manitoba in this capacity from 1932 to 1940 with credit, has joined the Royal Canadian Navy and has been transferred to the Pacific Coast. Long thought to be a confirmed bachelor, he confounded his friends by capturing, just before his departure, one of the fairest and brightest members of the instructing staff of the Winnipeg General Hospital Training School for Nurses, in the person of Miss Evelyn Smith, R.N., and taking her with him to the West. To the young couple we extend our heartiest greetings for continued happiness.

But the *Review* must go on, and the Executive Committee of the Manitoba Medical Association has been fortunate to secure Dr. F. Gerard Allison in his stead. If heredity counts for anything, Dr. Allison comes well prepared, for his father, W. T. Allison, Ph.D., was for many years Professor of English in the University of Manitoba, and was known to an even wider circle through his newspaper and radio book reviews.

The new editor has ideas regarding his duties which promise to make the *Review* even more widely read, and we are confident that he will add new lustre to the publication which has already passed through its infancy and childhood and before long will celebrate its majority. Kind reader, we present Dr. Gerard Allison to your tender mercies.

—ROSS MITCHELL, M.D.

Firefighters' Medical Service

Last August representatives of the three hundred Winnipeg Firemen approached the Manitoba Medical Association requesting consideration of a co-operative medical service scheme for themselves and their dependents. After six months' hard work by the Committee on Medical Economics of the Manitoba Medical Association, the plan was approved by the Executive of the Manitoba Medical Association and also by the Winnipeg Medical Society. The scheme went into effect on April 15th, 1940.

Two hundred and twenty-five doctors are taking part in the Service, of whom about seventy are specialists; the members of the Firefighters' Club are satisfied that the Manitoba Medical Association has lived up to its undertaking to give a wide choice of doctors. When the Associated Medical Services was instituted in Toronto, it was subsidised to the extent of five thousand dollars by the Ontario Medical Association. The Manitoba Medical Association has not been asked for any grant, nor is it likely that with its membership it could provide a sum of any such magnitude. No salaries or honorariums will be paid to any members of the administrative staff, and it is not proposed to make any deduction from doctors' pay cheques, as in the case of the Greater Winnipeg Medical Relief Scheme. It is always possible that the high incidence of illness during the winter months of the first year may make it necessary to appeal for funds to prevent hardship to practitioners who have given their services.

The initiation of the Firefighters' Medical Service has brought certain problems in its train. As was anticipated a good many cases of chronic diseases presented themselves; also conditions of long standing requiring surgical interference; in most of these it is probable that financial difficulties prevented treatment at an earlier date. Admission to the service subject to a previous medical examination and a clean bill of health would have defeated its object. It is hoped that these conditions will be cleared up in the first two or three months.

Meanwhile the members of the profession are co-operating whole-heartedly, and there have been no complaints from the Firefighters' Club.

—E. S. MOORHEAD.

Winnipeg Medical Society Executive 1940 - 1941

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In Memoriam

DR. WILLIAM HARVEY SMITH

1868-1940

With the passing on May 15th of William Harvey Smith after a long, happy and helpful life, Canada lost one of its outstanding physicians. Though his achievements in his chosen field of ophthalmology were considerable, including highly successful practice, the publication of articles in various medical journals, and thirty-two years' service on the faculty of Manitoba Medical College, twenty-seven of these as professor and head of the department of ophthalmology in the Winnipeg General Hospital, his true genius lay in the fields of organization and medical statesmanship. As President of the British Medical Association and also of the Canadian Medical Association in 1930, President of the Manitoba Medical Association, the College of Physicians and Surgeons of Manitoba and the Winnipeg Medical Society, and Chairman of the Restoration Fund of the Anglican Church in Canada, he had opportunities to show his powers of organization and administration and he filled these positions not only with distinction but with brilliance. His concern for the unity and honour of the medical profession and his desire that it should exercise the greatest good to the greatest number of people led him to throw his whole weight into upholding the highest principles of medical ethics and into championing the cause of health insurance. This latter was the main theme of his presidential addresses at the Winnipeg Meeting of the British and Canadian Medical Associations in 1930 and at the Vancouver Meeting of the Canadian Medical Association in 1931.

His background fitted him well for the tasks he undertook. His forbears were of United Empire Loyalist stock who settled in Port Hope, Ontario; his grandfather, Hon. Sidney Smith, was pre-confederation postmaster-general, and his father, Henry Hall Smith, was a personal friend of Sir John A. Macdonald. Harvey Smith was born in Peterborough in 1868, and was educated there and at Trinity College School, Port Hope, and came to Winnipeg with his parents in 1885, when his father became Dominion Lands Commissioner. He attended St. John's College and Manitoba University, graduating in natural sciences in 1889. In McGill University, where he obtained his medical degrees in 1892, he was a close friend of Charles F. Martin, later dean of McGill Medical Faculty, of R. Tait MacKenzie, the sculptor, and later Professor of Physical Education in the University of Pennsylvania. These friendships were terminated only with death. His post-graduate education was obtained in the Montreal General Hospital, the Manhattan Eye and Ear Hospital, New York, and in London and Paris. In 1895 he began practice in Winnipeg and acted as eye surgeon to the Canadian Pacific Railway. In 1901 he married Annie Prince Galt, youngest daughter of the late Sir Alexander Galt, one of the Fathers of Confederation, and grand-daughter of John Galt, the Scottish novelist who was a leading figure in the Canada Company which founded the towns of Gault, Guelph and Goderich in Ontario. Mrs. Smith was ever a true helpmate and a charming hostess.

From the beginning of his career in Winnipeg he took a leading part in organized medicine, and positions of responsibility were thrust upon him, so that he came to occupy a unique place of trust among medical men. No other physician in Winnipeg could have brought his confrères with him into the task of establishing the Medical Arts Building, the first building in Canada to be erected, owned and controlled solely by doctors and dentists. The building was completed in 1923, and Smith remained a member of the directorate until 1935.

As the third Canadian to be President of the British Medical Association, he made many friends among British physicians, among them Lord Dawson of Penn, the late Lord Moynihan, Sir Henry Brackenbury, Sir Robert Bolam, Sir Ewen Maclean, Dr. C. O. Hawthorne, Mr. A. H. Burgess, Mr. N. Bishop Harman and Dr. Alfred Cox. He was greatly impressed with the insurance system established under the British Medical Health Insurance Act of 1911, and with the proposal of the Council of the British Medical Association to establish a general medical scheme for the nation. He was anxious that in Canada some scheme might be established whereby the benefits of medical skill might be made available through health insurance, preferably of the voluntary type, to all citizens of the Dominion.

Through his acquaintance with such leaders in the American Medical Association as Dr. William Gerry Morgan, the late Dr. E. Starr Judd, Dr. C. Jeff Miller, Dr. Morris Fishbein and Dr. Olin West and through his Fellowship in the American College of Surgeons he kept in close touch with economic and sociological trends in American medicine.

He received the degree of Doctor of Laws, honoris causa, both from the University of Manitoba and from McGill University. An ardent golfer, he was the first president of Pine Ridge Golf Club and cherished a trophy presented to him when he made a hole in one.

Though many of his friends knew that he turned out occasional verse, it is not generally known that he wrote a hymn marked by deep feeling which has been set to music by Mr. Hugh Bancroft, the organist of All Saints Church, Winnipeg.

One of the finest traits in his character was his encouragement of younger men. He organized the Pi Epsilon Chapter of the Zeta Psi fraternity, the first Greek letter fraternity in Manitoba University. He was quick to detect talent or ability and did not suffer the possessor of these qualities to hide his light under a bushel. Bred in an atmosphere of high traditions, he remained steadfastly true to them, and there was always about him something of the grand manner and an innate dignity. He could walk with kings and yet not lose the common touch.

Personal Notes and Social News

Conducted by Gerda Fremming, M.D.

It's a Boy—and to Dr. and Mrs. F. Hartley Smith we offer our congratulations on the birth of their first son, 10 pounds 9 ounces, May 25th, at St. Boniface Hospital.

♡ ♡ ♡

Dr. and Mrs. Kenneth Trueman are accepting congratulations on the birth of their first child, a son.

♡ ♡ ♡

Dr. and Mrs. M. M. MacPherson of Vancouver, B.C. (née Hester Quirk), a son, May 19th.

♡ ♡ ♡

The following medical officers with the fighting forces have left their homes and most of them are now overseas: H. M. Edmison, C. K. Bleeks, R. H. Cooper, N. L. Elvin, R. W. Richardson, G. H. Ryan, C. H. Walton, P. K. Tisdale, Lennox Arthur, H. L. McNichol, G. S. Williams, C. W. MacCharles, A. S. C. Rumball, A. R. Gordon, C. E. Corrigan, J. N. Crawford and S. A. Boyd.

♡ ♡ ♡

Dr. J. G. Whitteker, formerly of Glenboro, Man., has moved to Desoronto, Ont.

♡ ♡ ♡

Dr. W. L. Kurtze, formerly of St. Boniface hospital, is now located at Kirkland Lake, Ont.

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Dr. Robert Inglis is now located at Red Lake, Ont.

Drs. J. D. and J. J. Leishman are now located at Fort Frances, Ont.

♡ ♡ ♡

Dr. K. A. Peacock, formerly of Brandon, Man., has moved to Grandview, Man.

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Dr. R. L. Cook, recently of Winkler, Man., is now at Wolseley, Sask.

♡ ♡ ♡

Dr. C. W. Hall, formerly of Beausejour, Man., is now associated with Dr. A. W. Hogg of Winnipeg.

♡ ♡ ♡

Dr. A. Searle has moved from Erickson, Man., to Pine Falls, Man.

♡ ♡ ♡

Dr. John Swan will be located at Bissett, Man.

♡ ♡ ♡

Dr. Murray Campbell is now resident physician at Dynevor hospital, Selkirk, Man.

♡ ♡ ♡

Now that the fishing season is open, a fish story should be in order.

Dr. Cruise and Dr. McEwen became disciples of Isaac Walton recently. The story goes: Four little fish were caught (napping probably), but the whopper THAT GOT AWAY??? PHEW!!! We are wondering if the combined length of the four fish caught equalled that of the monster who is still in the lake?

Contributions to This Column Invited

Under the title "Personal Notes and Social News" the Manitoba Medical Review will be pleased to publish each month personal interest notes, social activities, weddings, births, travels, sports and other news items pertaining to the Medical Profession of Manitoba and their families. Also of former Manitoba Members of the Profession and Graduates of the Faculty of Medicine practicing in other provinces and in distant lands.

This column will be conducted by Gerda Fremming, M.D. (Mrs. F. G. Allison). All contributions must be received at the editorial offices not later than the 15th of the month preceding date of issue.

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NEWS ITEMS

The following is the second and last instalment of "Preventive Aspects of Cancer," the first appearing in the May, 1940, edition of the Manitoba Medical "Review."

PREVENTIVE ASPECTS OF CANCER

"THE FUNDAMENTAL CHANGE"

"All students of the cancer problem agree that the inciting agents bring about an intracellular change which is the process of importance. It constitutes the malignant change. Although it has become possible to induce this malignant change at will by an increasing number of carcinogenic agents, the nature of the malignant change still remains baffling. There is nothing which the microscopist can identify with certainty as the beginnings of this change. This change from an orderly pattern to one without regulation is self-perpetuating. All the cells descended from those showing the malignant change retain the same qualities. They almost invariably reproduce the same histologic structure and breed true to type. This has been observed in transplantable neoplasms which have been carried in experimental animals for 30 years. Factors which bear on the behavior of the cell under impact from the inciting agents may be biologic or chemical in nature. Thus it becomes necessary to take into consideration the effects of the hereditary constitution; the internal cell metabolism; changes in the chemical balance which influence cell growth; and the virus problem.

"Evidence that the hereditary constitution has a bearing on the cancer problem comes from several directions. Existing human cancer statistics and records have very little value because of many inherent errors. But the accurate study of cancerous families may be of value. This is especially true where a study is made of specific organ types of cancer in relation to families. And when families have a certain sort of tumor which is not common, the familial incidence becomes significant."

"Readers interested in studies of the bearing of the hereditary constitution on the incidence of cancer are referred to Dr. Morton's article in the October 1937 *Annals of Surgery* (supra), which also discusses certain genetic aspects. Dr. Morton also gives certain theories concerning the intracellular change that is cancer.

"Investigators have been interested in tissue stimulators and inhibitors as possible factors in the production and the control of neoplasms for several years. . . . A most extensive and elaborate work on these substances has been produced by Maisin and his co-workers. They demonstrated that practically every organ contained both growth-inhibiting and growth-promoting factors. They also showed that most growth-promoting substances were water-soluble and relatively insoluble in ether; whereas the inhibiting substances were ether-soluble but for the most part insoluble in acetone. They used tarred animals as test objects and the growth substances were fed to them in their diets. They proved that these growth substances can pass the stomach and intestinal mucosa without being destroyed."

"Having studied the review of Dr. Morton's work we shall attempt to adapt certain concepts derived from the experimental studies to our clinical work. If you are as ignorant as I was of the late developments I am sure you will feel that all of this work and expenditure of brain power should hasten the discovery of the true cause of cancer and that it cannot be too far distant. We have learned that chronic irritation and infection influence the formation of cancer. Until we learn the

cause of cancer we must direct all our energies against the precancerous lesions. We have all known clinical cases of breast tumor which have seemingly been benign for a number of years to suddenly develop growth characteristics and result in cancer. Had the benign growth been removed early the cancer probably would not have resulted. In our work on prevention of cancer we must encourage periodic health examinations.

"When a patient consults us as to whether or not cancer is present, how extensive should be our examination? The most common places where cancer may develop and where precancerous prophylaxis may be of aid are the skin, tongue and mouth, the thyroid gland, the breasts, the gastro-intestinal canal (including the esophagus, stomach, colon and rectum), the uterus, ovaries and testicles, and the kidneys, bladder and prostate. A general history should cover these various areas by questions propounded by the physician. Most persons are aware of their skin blemishes, and they should be asked if there are any such and a study made of these abnormalities. Cancer may develop in infected sebaceous cysts; it may develop in sweat glands; it may develop in moles. It has also occurred after neglected burns and osteomyelitic sinuses.

"Any chronic lesion that has persisted over a period of time should, if possible, be eliminated. Careful examination should be made of the oral cavity. Infected teeth or ill-fitting plates should be noted. Any sores on the lips, gums or tongue should be considered as pre-cancerous until proved otherwise in people within the cancer age. It is within the scope of every physician to examine the tonsils and pharynx and, with a laryngoscope mirror, to observe the vocal cords. Cancer is rare in the thyroid gland, and in at least 95 per cent of the cases of cancer of the thyroid gland it originates in local enlargements of the thyroid commonly called adenoma. One should not condemn every patient with an adenoma of the thyroid to surgery unless the patient has experienced increase in size, pain or consistency of the local adenoma.

"The breast probably presents the greatest difficulty to the examining physician. The tendency to constrict the breast by tight brassieres as called for by certain fashion modes has done a good deal to increase breast disorders.

"Volumes have been written on the etiology and treatment of cystic mastitis. It occurs in many forms, notably in breasts that contain numerous shot-like cysts and in breasts that contain rather large single cysts. Where the cysts are localized, local excision is probably of advantage, but where the breast is nodular throughout there is not sufficient proof that cancer is apt to occur to advise mastectomy. Patients with such conditions should report frequently for examination to their physicians so that they may determine if there is any change that might suggest approaching malignancy.

"Diathermy, massage and breast pumps have in some cases proven of advantage, but unfortunately many cases do not respond to this therapy. The nipple should be carefully inspected and patients advised to keep scabs off by the use of soap and water and ointments. Single discrete, firm nodules in the breast, such as are produced by fibroadenomata should, wherever possible, be locally excised.

"The study of the gastrointestinal tract is difficult and complex. Assuming that a careful examination of the abdomen is made and no tenderness or mass detected, are we justified in telling the patient that there is nothing wrong in his gastro intestinal tract or thorax? We cannot give this assurance without the

aid of the x-ray, and unfortunately a thorough gastro-intestinal study increases the economic strain on many a patient to a degree that he cannot afford. We must, as doctors, attempt to work out some plan with our radiological brothers which will be fair to the patient, to themselves and ourselves. It may be that a minimum fluoroscopic or film study can be made on routine cases not having gastrointestinal symptoms. Such a study would mean a very short gastric examination and an examination of the sigmoid and colon. It should be understood by the patient, the physician and the radiologist that should any abnormality be seen in such a study further studies would be made at an increased cost.

"A vaginal examination should include visual observation, by means of the speculum, of the cervix and vaginal canal. A digital rectal examination should be done on every patient coming for a periodic health examination, and if there be any symptoms of change in bowel function, blood or mucus in the stools a sigmoidoscopic examination should be made. The cost of a sigmoidoscope is not so great but what the average practicing physician can afford it. Examinations through a sigmoidoscope are not difficult and can be made with fair accuracy by any physician who practices with the sigmoidoscope a short time.

"A digital examination would reveal also the presence of prostatic hypertrophy. In most patients symptoms from new growths in the kidneys, bladder or prostate are so pronounced that the patient is apt to consult the physician about them of his own accord. Every routine examination should include, of course, an examination of the urine. If the microscopic examination reveals red or white blood cells in repeated specimens a study by a urologist of the kidneys, bladder and prostate, should be carefully made.

"To review our examinations of the patient, what should be our prophylactic advice?

"Jagged teeth should be removed, as they are a constant source of irritation to the surrounding mucous membrane and may produce carcinoma. Pyorrhea should be referred for treatment. Leukoplakia or sores on the tongue should be carefully examined microscopically to preclude carcinoma. If these sores are due to smoking or errors in mouth hygiene the underlying cause should be removed. Long-persisting or firm adenomata of the thyroid are more safely referred to surgery than left untreated. Circumscribed breast tumors should be excised if clinically benign. A needle-cannula aspiration of a breast tumor and an examination by a capable pathologist of the tissue removed thereby may assure us of the diagnosis. Chronic indigestion and the causes thereof should be carefully studied by the examining doctor. Examination of the gastric meal, and examination of the stool and radiological studies should be made. Once the possibility of cancer has been ruled out, and having ascertained as far as possible the causes of indigestion, every attempt should be made, by dietary regime and general medical therapy, to aid the patient.

"In considering the rectum it is insufficient to ask a patient whether he has diarrhea or constipation. The patient may have a partial obstruction due to carcinoma and still have two or three stools a day, which he will state, when closely questioned, are not diarrhea but are insufficient bowel movements. Watery diarrhea may be present in carcinoma of the colon with partial obstruction, but the symptoms of gas and distress should lead one to investigate the case further by x-ray and careful physical examination. Hemorrhoids that have persisted for a considerable period of time and have not benefitted by diet and suppositories, and have been the cause of blood at stool, should be treated either by injection or excision.

"Women should be educated to consult their doctors when they have any irregular menstruation about the time of the menopause.

"Spotting between periods should call for a diagnostic curettage and examination under the microscope of the curettings.

"Erosions of the cervix, or Nabothian cysts, should in general be treated by the cautery method. This should be done in the office by either the endotherm knife or the cautery. It does not take long before the sloughing tissue separates and mucous membrane covers the surface in a normal manner.

"Smears should be taken of the vaginal and cervical secretions to exclude either venereal infection or Trichomonas vaginalis. Any persistent leucorrhea should be given adequate therapy in order to prevent chronic infection of the cervical canal.

"Recurring pyuria or hematuria must always be investigated by x-ray, cystoscope and intravenous pyelogram, according to the symptoms suggested by the patient.

"We must, by public education, instruct the layman that cancer in its early form does not cause pain. It is only when it presses on some nearby structure or nerve that pain results.

"No attempt can be made here to suggest the individual treatment of cancer when it has once developed, but it should be emphasized to the average doctor that the results of the treatment of cancer, while still a long way from ideal, are not as bad as one is led to believe. Any hospital with a good follow-up system can show many cases of 5 and 10-year cures of cancer of all of the regions of the body noted above.

"It behooves us as practicing physicians not only to eradicate precancerous lesions but to be eternally vigilant to make an early diagnosis of cancer and immediately initiate the appropriate treatment."

COMMUNICABLE DISEASES REPORTED

Urban and Rural - March 26th to April 22nd

Measles: Total 2,516—Winnipeg 1,671, St. James 1, Kildonan East 125, Kildonan West 116, Harrison 1, St. Boniface 59, St. Vital 45, Bifrost 30, Brooklands 21, Eriksdale 20, Brandon 19, Morris Town 1, Rosser 13, Unorganized 16, Springfield 15, Flin Flon 13, Morris Rural 13, Fort Garry 11, St. Clements 6, Carman 6, North Norfolk 5, St. Andrews 5, Woodlands 5, Dufferin 4, Strathclair 3, Woodlea 3, Tracadie 2, Siglunes 2, Neepawa 2, Odanah 2, Ritchot 2, Rockwood 2, Russell Town 2, Saskatchewan 1, Charleswood 1, Coldwell 1, Franklin 1, Gimli Village 1, Hamiota Village 1, Lansdowne 1, Lorne 1, MacDonald 1, Portage Rural 1, Selkirk 1, Thompson 1, Tuxedo 1 (Late Reported: Flin Flon 12, St. Boniface 5, North Norfolk 3, Brandon 1, Odanah 1, Portage City 1, St. James 1, Springfield 1, Unorganized 1, Westbourne 1).

Whooping Cough: Total 164—Winnipeg 43, St. Boniface 26, Portage City 16, Woodlea 7, Edward 4, Brandon 4, North Norfolk 3, Rosser 3, Roblin 2, Rapid City 2, Neepawa 2, Brooklands 2, Arthur 1, Kildonan West 1, Saskatchewan 2 (Late Reported: Brandon 11, Rapid City 7, Portage City 5, Roblin 5, Unorganized 5, Portage Rural 3, The Pas 1, Riverside 1, Blanchard 1, Saskatchewan 1).

Chickenpox: Total 134—Winnipeg 69, St. Boniface 1, Brandon 10, Unorganized 9, Silver Creek 5, The Pas 4, Hamiota Village 3, Montcalm 3, St. Vital 3, Tracadie 2, Daly 2, Albert 1, Fort Garry 1, Grandview 1, Hamiota Rural 1, Kildonan West 1, Lorne 1, Rivers Town 1, St. Clements 1, St. James 1 (Late Reported: Portage Rural 2, Melita 1, Brandon 1).

Typhoid Fever: Total 68—St. Boniface 39, Winnipeg 6, St. Anne 5, Springfield 5, Brandon 1, Lorne 1, MacDonald 1, Montcalm 1, St. Vital 1 (Late Reported: St. Boniface 7, Rosedale 1).

Scarlet Fever: Total 64—Winnipeg 23, Mossey River 5, Montcalm 3, St. Vital 3, Tuxedo 3, Unorganized 3, Strathcona 2, Dauphin Town 2, Gilbert Plains Village 2, St. James 2, Gilbert Plains Rural 1, Kildonan West 1, Morton 1, North Norfolk 1, Rockwood 1, Russell Rural 1, St. Boniface 1, St. Paul West 1, Springfield 1, Wawanesa 1, Gladstone 1 (Late Reported: Unorganized 3, Russell Rural 1, St. Boniface 1).

Rumps: Total 53—Winnipeg 43, Kildonan East 4, St. Boniface 3, Oakland 2, Brenda 1.

Pneumonia (Lobar): Total 32—Unorganized 6, Ste. Rose Rural 4, Brandon 3, McCreary 3, Ochre River 2, Ste. Rose Village 1, Lansdowne 1 (Late Reported: Birtle 1, Brandon 2, De Salaberry 2, Roblin Rural 2, Glenwood 1, Lorne 1, Langford 1, Westbourne 1, St. Boniface 1).

Tuberculosis: Total 25—Winnipeg 5, Unorganized 5, Birtle Rural 2, Portage City 2, Dauphin Rural 1, Ethelbert 1, Glenwood 1, Kildonan East 1, Lac du Bonnet 1, Portage Rural 1, Rossburn 1, Ste. Rose Rural 1, Swan River Rural 1, Tache 1, The Pas 1, Treaty Indian Cases 2.

Diphtheria: Total 13—Hanover 4, Lac du Bonnet 2, Winnipeg 2, Unorganized 1, Swan River Rural 1, Franklin 1, Lorne 1 (Late Reported: Hanover 1).

Erysipelas: Total 10—Winnipeg 4, Arthur 1, Brandon 1, Charleswood 1, Kildonan West 1, Rockwood 1, St. James 1.

Influenza: Total 9—Brandon 1 (Late Reported: Franklin 1, Albert 1, Edward 1, Gimli Village 1, Minitonas 1, South Norfolk 1, Rosedale 1, Whitehead 1).

Diphtheria Carriers: Total 8—Winnipeg 5, Roblin Town 2, St. Francois Xavier 1.

Typhoid Fever Carriers: Total 2—Ste. Anne 2.

Septic Sore Throat: Total 2—Morris Town 1, Tuxedo 1.

German Measles: Total 1—Brandon 1.

Trachoma: Total 1—Rhineland 1.

Puerperal Fever: Total 1—Stanley 1.

Encephalitis: Total 1—Brandon 1.

Anterior Poliomyelitis: Total 1—Transcona 1.

Venereal Disease: Total 144—Gonorrhoea 98, Syphilis 46.

DEATHS FROM ALL CAUSES IN MANITOBA

For the Month of March, 1940

URBAN—Cancer 39, Influenza 8, Pneumonia Lobar 3, Tuberculosis 5, Measles 3, Pneumonia (other forms) 5, Syphilis 3, Whooping Cough 1, Typhoid Fever 2, Poliomyelitis 1, all others under one year 13, all other causes 163, Stillbirths 14. Total 260.

RURAL—Cancer 22, Pneumonia 16, Influenza 16, Tuberculosis 12, Pneumonia Lobar 6, Syphilis 5, Whooping Cough 4, Cerebral Meningitis 1, all others under one year 15, all other causes 155, Stillbirths 21. Total 273.

INDIANS—Tuberculosis 7, Pneumonia (other forms) 6, Influenza 1, Whooping Cough 1, all others under one year 8, all other causes 7. Total 30.



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